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THE EFFECT OF GENDER ON CORRUPTION

Sorting out explanations for gender differences with new experimental research

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ABSTRACT

An extensive literature demonstrates a relationship between gender and corruption, with women being less involved in corrupt transactions than men. There are two major ways of explaining this correlation; one emphasizes differences between men and women in risk-aversion and the other differences in pro-social behavior. However, whether there is support for these explanations is never directly tested. We take advantage of one opportunity for gathering this evidence by replicating and extending a well-cited experimental study by Alatas et al. (2009). Through our extension of the Alatas et al. study, we were able to collect unique information on gender differences in rationalizations of experimental subjects' behavior. The key finding is that we see significant gender differences in reasons for behavior: the results indicate risk-seeking behavior among men but not risk aversion among women. Instead, pro-social reasoning is apparent among women.

Key words: gender, corruption, bribery-game, risk-aversion, pro-social behavior

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Introduction

Previous research suggests that there is a link between gender and corruption; with women being less involved in corrupt transactions than men (Bauhr et al. 2018; Brollo and Troiano 2016; Dollar et al. 2001; Esarey and Chirillo 2013; Esarey and Schwindt-Bayer 2018; Swamy et al. 2001; Fišar et al. 2016; Stensöta and Wängénrud ed. 2018). Since the link between gender and corruption is rather persistent, scholars are currently more inclined to discuss *why* the pattern exists as opposed to whether it exists at all. On this front, two explanations predominate the literature for understanding why women are less corrupt than men. The first type of explanation focuses on differences between men and women in risk-aversion. Scholars following this line of reasoning emphasize that women are punished harder than men for norm-breaking behavior and thus, in settings where there is a strong norm against corruption women refrain from such behavior (Esarey and Chirillo 2013; Esarey and Schwindt-Bayer 2018). The second type of explanation focuses on differences in gender role socialization (Dollar et al. 2001; Swamy et al. 2001). Scholars following this line of reasoning emphasize that processes socializing girls to be more other regarding and caring compared to boys predisposes women to support and engage in more pro-social behavior, which lessens their tendency to engage in corruption.

Scholars tend to invoke these explanations to explain correlations between gender and corruption, when finding, for instance, that women are less likely to consider bribery justifiable in cross-national public opinion surveys (Torgler and Valev 2010), or to explain correlations between female inclusion and levels of corruption across societal units (e.g., women's presence in national legislatures and countries' levels of corruption (Esarey and Schwindt-Bayer 2018)). However, whether there is support for these explanations is never directly tested. For instance, these studies do not ask women why they think bribery is unjustifiable and they do not ask female politicians why they are averse to corruption,

We take advantage of one opportunity for gathering evidence on why individuals react the way that they do when faced with a corruption scenario. We do this by replicating and extending a

well-cited experimental study by Alatas et al. (2009). Through our extension of the Alatas et al. study, we were able to collect unique information on gender differences in rationalizations of experimental subjects' behavior. Alatas et al. investigate gender differences in a bribery game. In the game, three persons are confronted with a common bribery problem in which they assume roles as players. The roles assigned to the players are a manager of a firm, a government official and a citizen. Then, through a series of moves, players must decide whether to bribe.

We replicate Alatas et al.'s study with experiments in Germany and the United States and extend the research by asking for player rationalizations of how they played the game. Through this extension of the research, we gain insights into how respondents themselves explained their behavior with data from a questionnaire asking them to reflect on how they played the game. With this new data, to the best of our knowledge, we are the first to evaluate gender differences in behavior rationalization in corruption scenarios, which contributes to our understanding of the proposed mechanisms in the literature on gender and corruption.

Hypotheses

As we have noted a rather extensive literature demonstrates that women are more averse to corruption compared to men. The experiments on which our study builds were conducted in Germany and the United States, two advanced democracies¹, thus, we hypothesize *that women, in the bribery game, should refrain from corrupt behavior to a higher degree than men (H1)*.

We perceive risk-aversion as the explanation currently gaining the most attention for those assumed differences. An important backdrop for this emphasis is the rather extensive experimental

¹ Research finds that this is especially likely to impact levels of corruption in democracies (Esarey and Chirillo 2013). Similarly, in their experimental work, Alatas et al. also found a gender effect in playing the bribery game in a democratic context.

research in the area of financial risks. For instance, Byrnes et al. (1999) reviewed 150 studies, examining differences in risk-taking between men and women and demonstrated that women, on average, take fewer risks than men (see also Charness and Gneezy 2012; Jianakoplos and Bernasek 1998). Thus, we hypothesize *that risks, fear of sanctions, and similar reasons will be more apparent in explanations brought forward by women than men in the experimental bribery game (H2).*

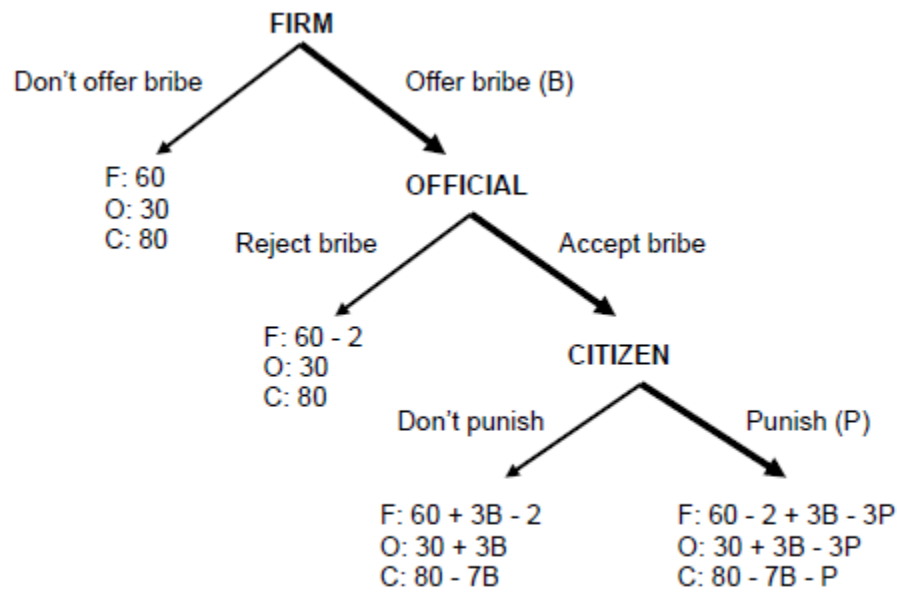
Another strand of research, however, proposes a greater female propensity towards pro-social behavior as the explanation for gender differences. In social psychology, prosocial behavior was traditionally captured by whether bystanders interfere in situations concerning unknown others. More recently, the perspective has started to include a variety of behaviors, to the benefit of unknown others and/or collective groups (Dovidio et al. 2006). For instance, a recent experimental study on tax compliance (D’Attoma et al. 2018) in the United States, the United Kingdom, Sweden and Italy lends some support to the pro-social explanation: in all countries women are significantly more compliant than men but there is little evidence of this being triggered by attitudes towards risks. In line with these assumptions and findings, we hypothesize *that pro-social behavior, care of unknown others, will be more apparent in explanations brought forward by women than men in the experimental bribery game (H3).*

The bribery game

Similar to the experiment of Alatas et al. (2009) we conducted a laboratory experiment, including 712 students (308 males (43%) and 404 women (57%)), designed as a sequential-move game. In the experiment, three persons are confronted with a common bribery problem in which they assume roles as players. The roles assigned to the players are a manager of a firm, a government official and a citizen whom start, respectively, with a fictitious endowment of 30, 60, and 80 experimental dollars. Then, through a series of moves, players must decide whether to bribe. The firms and public officials know that they face sanctions from the citizens if they engage in corruption and can calculate the consequences based on the decision tree. Figure 1 contains an extensive-form representation of the

game where all of the payoffs are denoted in experimental dollars (see appendix for more information).

FIGURE 1, THE GAME TREE



1. The firm player moves first and must decide whether to offer a bribe to the government official player to avoid complying with an environmental regulation (in order to increase its own payoff at the expense of society), and if so, how much to offer. The player can choose a bribe amount $B \in \mathbb{R}$. It costs the firm two experimental dollars to offer the money and the firm incurs this transaction cost regardless of whether the bribe is accepted.

2. If the bribe is offered, the official can either accept or reject it. Acceptance of the bribe implies favorable treatment of the firm. It increases the payoffs of both the firm and the official by $3B$, but decreases the payoff of the citizen by $7B$. Bribery has a significant impact on society. This is captured by the large decrease in the citizen's payoff. The payoff increases the likelihood that the firm benefits

from avoiding environmental regulation. The official's payoff also increases by $3B$ even though the amount of bribe paid by the firm is B . This is due to a difference in the marginal utility of income. Since the income earned in the public sector is likely to be lower than that earned in the private sector, the same amount of money can be assumed to have a lower marginal utility value to the firm than to the official.

3. The third player is called the citizen and moves last after observing the choices made by the firm and the official. The citizen observes the decisions made by the firm and the official and can punish them for the act of bribery by choosing an amount $P \in$ in penalty. Punishment is costly to the citizen and reduces the citizen's payoff by the amount of the punishment, P . However, it imposes a monetary sanction on the firm and official by reducing their payoffs by $3P$. Hence, the net benefit to the firm and the official from the corrupt transaction is $3B - 2 - 3P$ and $3B - 3P$ respectively.

According to their role, we survey players after the game to gather data on their reasons for their behavior. They are allowed to choose several answers from a list but they can also add reasons in an open-ended "other" option (survey included in the appendix). The reasons presented to players vary according to whether individuals choose to bribe or to abstain and whether they play the roles as firm, official or citizen. In the following analysis, we begin by analyzing gender differences in bribing, accepting a bribe and punishment for accepting a bribe and then move on to analyzing gender differences in reasons given for behavior.

Results

The appendix includes several tests such as t-tests and (logistic) regression analyses with controls.² Here we will report the main findings of our experiment in comparison to the results for Australia in the Alatas et al. (2009) study. Table 1 shows gender differences in bribing, accepting and punishing.

TABLE 1, GENDER DIFFERENCES IN BRIBING, ACCEPTING AND PUNISHING

| A. Australia Alatas et al 2009 study | | | |
|---|-------|--------|---------|
| | Male | Female | p-value |
| % firms bribing | 91.59 | 80.37 | 0.02 |
| % officials accepting | 92.13 | 80.00 | 0.02 |
| % citizens punishing | 49.15 | 62.63 | 0.10 |
| B. Germany and United States current study | | | |
| | Male | Female | p-value |
| % firms bribing | 64.71 | 52.31 | 0.06 |
| % officials accepting | 52.46 | 57.53 | 0.55 |
| % citizens punishing | 57.14 | 59.26 | 0.86 |

Comment: See text and online appendix for information on the current study.

² We have run certain t-tests such as two-group mean-comparison test (two-sample t test with equal variances) as well as (logistic) regression analyses including religion, field of study, work experience, time spent in other countries, corruption experience, the wish to work in the private or public sector and nationality (see online appendix).

TWO-GROUP MEAN-COMPARISON TEST: TWO-SAMPLE T TEST WITH EQUAL VARIANCES

a) BRIBE AS FIRM

| Group | Obs | Mean | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|----------|-----|-------|-----------|-----------|----------------------|
| Male | 85 | 0.647 | 0.052 | 0.480 | 0.543 0.750 |
| Female | 151 | 0.523 | 0.040 | 0.501 | 0.442 0.603 |
| combined | 236 | 0.567 | 0.032 | 0.496 | 0.504 0.631 |
| diff | | 0.123 | 0.066 | | -0.008 0.255 |

$$diff = mean(0) - mean(1)$$

$$t = 1.849$$

$$H_0: diff = 0$$

$$degrees\ of\ freedom = 234$$

$$H_a: diff < 0$$

$$H_a: diff \neq 0$$

$$H_a: diff > 0$$

$$Pr(T < t) = 0.967$$

$$Pr(|T| > |t|) = 0.065$$

$$Pr(T > t) = 0.032$$

b) ACCEPTANCE AS OFFICAL

| Group | Obs | Mean | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|----------|-----|--------|-----------|-----------|----------------------|
| Male | 61 | 0.524 | 0.064 | 0.503 | 0.395 0.653 |
| Female | 73 | 0.575 | 0.058 | 0.497 | 0.459 0.691 |
| combined | 134 | 0.552 | 0.043 | 0.499 | 0.466 0.637 |
| diff | | -0.050 | 0.086 | | -0.222 0.120 |

$$diff = mean(0) - mean(1)$$

$$t = -0.584$$

$$H_0: diff = 0$$

$$degrees\ of\ freedom = 132$$

$$H_a: diff < 0$$

$$H_a: diff \neq 0$$

$$H_a: diff > 0$$

$$Pr(T < t) = 0.279$$

$$Pr(|T| > |t|) = 0.559$$

$$Pr(T > t) = 0.720$$

Continued, next page

c) PUNISHMENT AS CITIZEN

| Group | Obs | Mean | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|----------|-----|--------|-----------|-----------|----------------------|
| Male | 21 | 0.571 | 0.110 | 0.507 | 0.340 0.802 |
| Female | 54 | 0.592 | 0.067 | 0.495 | 0.457 0.727 |
| combined | 75 | 0.586 | 0.057 | 0.495 | 0.472 0.700 |
| Diff | | -0.021 | 0.128 | | -0.276 0.234 |

$$\begin{aligned}
 \text{diff} &= \text{mean}(0) - \text{mean}(1) & t &= -0.164 \\
 H_0: \text{diff} &= 0 & \text{degrees of freedom} &= 73 \\
 H_a: \text{diff} &< 0 & H_a: \text{diff} &= 0 & H_a: \text{diff} &> 0 \\
 \Pr(T < t) &= 0.434 & \Pr(|T| > |t|) &= 0.869 & \Pr(T > t) &= 0.565
 \end{aligned}$$

The results in Table 1 lend some support to the Alatas et al. conclusion that men have a higher propensity to bribe than women: in the role as firm, 64.71 % of the men, compared to 52.32 % of women offered a bribe and this result holds in regression analyses (Table A1 in online appendix). However, neither in the role as the official or as the citizen do we observe significant gender differences. Thus, *H1, that women, in the bribery game, should refrain from corrupt behavior to a higher degree than men*, can only partially be confirmed.

Reasons for behavior

We are not aware of any previous experimental study in the area of corruption research where analyses of men's versus women's way of rationalizing their behavior have been conducted. Table 2 reports gender differences in reasons for behavior in the different phases of the bribery game.³ Reasons that are more apparent among women than men are "morality" (phase 1 not offering a bribe, phase 3 reasons for punishing), "to reduce corruption" (phase 1 not offering a bribe, phase 2 reasons for

³ It should be noted that the context of our study was neutral in the way that the material handed out to students said nothing about gender. Thus we can assume that effects of gender on reason for behavior indicate attitudinal differences with some validity (even though results should be interpreted with some care since comparatively few respondents gave reasons for their behavior).

rejecting the bribe), “fairness” (phase 3 punishing) and “bribe may be for a good purpose” (phase 3 not punishing). These reasons can be interpreted as pro-social behavior. Reasons that are more apparent among men are “profit/pay-off maximization” (phase 1 offering bribe, phase 2 accepting the bribe, phase 3 not punishing), “salaries are low” (phase 2 accepting bribe) and “bribe too small” (phase 2 rejecting the bribe). Profit/pay-off maximization can be interpreted as risk-seeking behavior whereas salaries are low and bribe too small can be interpreted as self-regarding behavior. Compared to other themes, risk-aversion and fear is seldom mentioned. In one phase (phase 1 not offering a bribe) women give answers in line with a risk-aversion perspective, choosing to answer “risk-aversion/fear of sanctions/consequences/laws” but percentages are low (7%) and men also give such answers in phase 2 (rejecting the bribe), choosing to answer “scared of implications/risk” to almost the same extent as women (32% and 34% respectively). Thus, *H2, that risks, fear of sanctions, and similar themes will be more apparent in explanations brought forward by women than men* can be rejected and, *H3, that pro-social behavior, care of unknown others, will be more apparent in explanations brought forward by women than men* confirmed. Interestingly enough, these results indicate that men may be more risk-seeking than women but this is not necessarily the same thing as saying that women thereby can be regarded as more risk-averse.

As with any other method, experimental approaches have some limitations such as the external validity of the findings. We are fully aware of the methodological problems involved identifying the precise micro-level mechanism in an experimental setting of this type. However, compared to other approaches investigating the complex corruption-gender link, we argue that our analysis provides a somewhat more precise account of the underlying dynamics than so far attempted in the literature. We recommend that future studies should replicate our study to explore the gender-corruption link in different samples, contexts and settings.

TABLE 2, GENDER DIFFERENCES IN REASONS FOR BEHAVIOR

| | Male | Female | Difference |
|--|------|--------|------------|
| Phase 1 reasons for offering the bribe | | | |
| To see the response of the official/citizen | 35% | 59% | -24 |
| Payoff maximization | 50% | 36% | +14 |
| For the good of the country (e.g. reduce unemployment) | 14% | 8% | +6 |
| <i>Total number answering</i> | 66 | 88 | |
| Phase 1 reasons for not offering the bribe | | | |
| Morality | 36% | 65% | -29 |
| To reduce corruption (social cost) | 18% | 47% | -29 |
| Profit-maximization (in long run bad for the firm) | 32% | 20% | +12 |
| Risk aversion/fear of sanctions/consequences/laws | - | 7% | -7 |
| To protect the environment/environmental reasons | 2% | 5% | -3 |
| Not necessary for firms to bribe | 11% | 12% | -1 |
| Equity | 9% | 9% | - |
| <i>Total number answering</i> | 44 | 87 | |
| Phase 2 reasons for accepting the bribe | | | |
| Necessary because salaries are low | 28% | 13% | +15 |
| Payoff maximization | 55% | 42% | +13 |
| Game will continue | 41% | 47% | -6 |
| Necessary for firms/help the firm | 17% | 13% | +4 |
| Equity | 7% | 5% | +2 |
| <i>Total number answering</i> | 29 | 38 | |
| Phase 2 reasons for rejecting the bribe | | | |
| Bribe too small | 28% | 13% | +15 |
| To reduce corruption (social cost) | 41% | 52% | -11 |
| Payoff maximization | 10% | 16% | -6 |
| Scared of implications/risk | 34% | 32% | +2 |
| Fairness | 31% | 29% | +2 |
| Morality | 55% | 55% | - |
| <i>Total number answering</i> | 29 | 31 | |
| Phase 3 reasons for punishing | | | |
| Morality | 58% | 78% | -20 |

| | | | |
|--|------|-----|-----|
| Fairness | 42% | 59% | -17 |
| Negative reciprocity | 25% | 19% | +6 |
| Reduce corruption | 67% | 66% | +1 |
| <i>Total number answering</i> | 12 | 32 | |
| Phase 3 reasons for not punishing | | | |
| Payoff maximization | 100% | 71% | +29 |
| Bribe may be for good purpose or necessary | - | 19% | -19 |
| Difficult to change the system | 12% | 29% | -17 |
| Ineffective punishment system | 38% | 24% | +14 |
| <i>Total number answering</i> | 8 | 21 | |

Comment: See text and online appendix for information on the study.

Conclusion

Our finding that the Alatas et al. (2009) results could only partially be confirmed should not be taken as an indicator that gender plays a limited role in relation to corruption. Most contemporary studies discuss effects on levels of corruption from female representation in elected arenas such as parliaments and local councils. The important contribution of our study is that we found little evidence of risk-aversion among women as an explanation for their differences in behavior compared to men. Our results underpin the notion that forthcoming studies should delve deeper into the role of pro-social versus self-regarding behavior in analyzes of effects of gender on corruption.

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APPENDIX

The framing of the experiment had nothing to do with gender but the question guiding the initial research was “What affects an individual’s propensity to engage in and punish corrupt actions?” and the aim was to get at the effects of culture through a comparison between individuals in the United States and Germany. The data, consisting of bribery games with over 700 students, can however be analyzed from a gender perspective. In the first section of the appendix we report the raw figures and in the second section results of regression analysis. The survey is included at the end of the appendix.

Section I

TABLE 1A, PERCENTAGES OFFERING A BRIBE

| | Bribed as a Firm | | Total |
|-------|------------------|-----------------|---------------|
| | Yes | No | |
| Men | 55 (64.71%) | 30 (35.29%) | 85 (100%) |
| Women | 79 (52.32%) | 72 (47.68%) | 151 (100%) |
| Total | 134 (56.78%) | 102 (43.22%) | 236 (100%) |

TABLE 1B, REASONS FOR OFFERING THE BRIBE (FIRM)

| | Women | Men |
|---|-------|-----|
| Payoff Maximization | 32 | 33 |
| For the Social / Economic Good of the Country (e.g. reduce unemployment etc.) | 7 | 9 |
| To see the response of the official / citizen | 52 | 23 |
| Total | 88 | 66 |

Note: Respondents could give several answers

TABLE 1C, REASONS FOR NOT OFFERING THE BRIBE (FIRM)

| | Women | Men |
|--|-------|-----|
| Morality | 57 | 16 |
| To reduce corruption (social cost) | 41 | 8 |
| Profit-Maximisation (in the long run it is bad for the firm) | 17 | 12 |
| Not necessary for firms to bribe | 10 | 5 |
| Equity | 8 | 4 |
| Risk aversion/ Fear of Sanctions/Consequences/Laws | 6 | - |
| To protect the environment / environmental reasons | 4 | 1 |
| Total | 87 | 44 |

Respondents could give several answers

TABLE 2A, PERCENTAGES ACCEPTING A BRIBE

| | Accepted as Official | | Total |
|-------|----------------------|----------------|---------------|
| | Yes | No | |
| Men | 32 (52.46%) | 29 (47.54%) | 61 (100%) |
| Women | 42 (57.53%) | 31 (42.47%) | 73 (100%) |
| Total | 74 (55.22%) | 60 (44.78%) | 134 (100%) |

TABLE 2B, REASONS FOR ACCEPTING THE BRIBE

| | Women | Men |
|--|-------|-----|
| Necessary for firms to bribe / will be able to help the firm | 5 | 5 |
| Necessary because salaries are low | 5 | 8 |
| Payoff Maximisation | 16 | 16 |
| Equity | 2 | 2 |
| Game will continue | 18 | 12 |
| Total | 38 | 29 |

TABLE 2C, REASONS FOR REJECTING THE BRIBE

| | Women | Men |
|------------------------------------|-------|-----|
| Morality | 17 | 16 |
| To reduce corruption (social cost) | 16 | 12 |
| Scared of implications / risk | 10 | 10 |
| Payoff Maximisation | 5 | 3 |
| Fairness | 9 | 9 |
| Bribe too small | 4 | 8 |
| Total | 31 | 29 |

Respondents could give several answers

TABLE 3A, PERCENTAGES PUNISHING AS CITIZENS

| | Punished as a Citizen | | Total |
|-------|-----------------------|----------------|--------------|
| | Yes | No | |
| Men | 12 (57.14%) | 9 (42.86%) | 21 (100%) |
| Women | 32 (59.26%) | 22 (40.74%) | 54 (100%) |
| Total | 44 (58.67%) | 31 (41.33%) | 75 (100%) |

TABLE 3B, REASONS FOR PUNISHING (CITIZENS)

| | Women | Men |
|----------------------|-------|-----|
| Morality | 25 | 7 |
| Reduce corruption | 21 | 8 |
| Fairness | 19 | 5 |
| Negative Reciprocity | 6 | 3 |
| Total | 32 | 12 |

Respondents could give several answers

TABLE 3C, REASONS FOR NOT PUNISHING (CITIZENS)

| | Women | Men |
|---|-------|-----|
| Payoff Maximisation | 15 | 8 |
| Difficult to change the system | 6 | 1 |
| Ineffective punishment system | 5 | 3 |
| Bribe may be for a good purpose or may be necessary | 4 | - |
| Total | 21 | 8 |

Respondents could give several answers

NUMBER OF JUSTIFICATIONS / REASONS (OVERALL SAMPLE) FOR EACH ROLE

Bribed

women gave 109 reasons; 79 bribed (109/79) = **1,37 reasons**

men gave 73 reasons; 55 bribed (73/55) = **1,32 reasons**

Did not bribe

women gave 136 reasons for non-bribery; 72 didn't bribe = **1,88 reasons**

men gave 48 reasons for non-bribery; 30 did not bribe = **1,6 reasons**

Acceptance of bribe

women gave 47 reasons; 42 accepted (47/42) = **1,19 reasons**

men gave 45 reasons; 32 accepted (45/32) = **1,40 reasons**

Non-Acceptance of bribe

*women gave 66 reasons; 31 did not accepted (66/31) = **2,12 reasons**

*men gave 67 reasons; 29 did not accepted $(67/29) = 2,31$ reasons

Punish

* women gave 75 reasons; 32 punished $(75/32) = 2.34$

* men gave 26 reasons; 12 punished $(26/12) = 2.16$

No Punishing

* women gave 31 reasons for not punishing; 22 did not punish $(31/22) = 1.4$

* men gave 12 reasons; 9 did not punish $(12/9) = 1.33$

Section II: Regressions

TABLE A1, BRIBED AS A FIRM: TOTAL SAMPLE

| Variables | Dependent Variable: Bribed as a Firm (1) |
|--|---|
| Gender | -0.634* (0.328) |
| Religion | -0.026 (0.053) |
| Field of Study | -0.013 (0.018) |
| Work Experience | -0.837** (0.363) |
| Time spent in other countries | 0.009* (0.005) |
| Corruption Experience | 0.431 (0.431) |
| Wish to work in private or public sector | 0.054 (0.190) |
| Nationality California = 1; Germany=0 | 0.747** (0.351) |
| Constant | 0.065 (0.727) |
| Observations | 206 |
| Pseudo R2 | 0.0791 |
| Prob > chi2 | 0.0043 |
| Note: Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1 | |

TABLE A2, AMOUNT OF BRIBE: TOTAL SAMPLE

| Variables | Dependent Variable: Amount of Bribe (1) |
|--|--|
| Gender | -1.544*** (0.404) |
| Religion | -0.043 (0.064) |
| Field of Study | -0.001 (0.024) |
| Work Experience | 0.619 (0.394) |
| Time spent in other countries | 0.001 (0.003) |
| Corruption Experience | 0.210 (0.496) |
| Wish to work in private or public sector | 0.367 (0.231) |
| Nationality | -0.130 (0.439) |
| Constant | 6.276*** (0.880) |
| Observations | 111 |
| Prob > F | 0.029 |
| R-squared | 0.150 |

Note: Standard errors in parentheses*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

TABLE A3, ACCEPTANCE OF BRIBE: TOTAL SAMPLE

| Variables | Dependent Variable: Acceptance of Bribe |
|--|---|
| Gender | -0.326 (0.437) |
| Religion | 0.067 (0.075) |
| Field of Study | -0.011 (0.020) |
| Work Experience | 0.470 (0.460) |
| Time spent in other countries | -0.001 (0.004) |
| Corruption Experience | -0.058 (0.495) |
| Wish to work in private or public sector | -0.164 (0.262) |
| Nationality | 1.595*** (0.507) |
| Constant | -2.256** (0.932) |
| Observations | 115 |
| Pseudo R2 | 0.0887 |
| Prob > chi2 | 0.0806 |

Note: Standard errors in parentheses*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

TABLE A4, PUNISHMENT OF BRIBE: TOTAL SAMPLE

| Variables | Dependent Variable: Punishment of Bribe (1) |
|--|--|
| Gender | -0.035 (0.752) |
| Religion | 0.152 (0.106) |
| Field of Study | 0.105** (0.048) |
| Work Experience | 0.424 (0.639) |
| Time spent in other countries | -0.004 (0.005) |
| Corruption Experience | -0.495 (0.773) |
| Wish to work in private or public sector | -0.112 (0.409) |
| Nationality | -1.915** (0.836) |
| Constant | 2.128 (1.681) |
| Observations | 65 |
| Pseudo R2 | 0.159 |
| Prob > chi2 | 0.077 |

Note: Standard errors in parentheses*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

TABLE A5, AMOUNT OF PUNISHMENT: TOTAL SAMPLE

| Variables | Dependent Variable: Punishment of Bribe (1) |
|--|--|
| Gender | -4.145* (2.176) |
| Religion | -0.532 (0.314) |
| Field of Study | -0.001 (0.090) |
| Work Experience | 2.142 (1.901) |
| Time spent in other countries | -0.020 (0.021) |
| Corruption Experience | 1.802 (2.556) |
| Wish to work in private or public sector | -1.527 (1.036) |
| Nationality | 1.559 (2.197) |
| Constant | 12.52** (4.574) |
| Observations | 38 |
| Prob > F | 0.229 |
| R-squared | 0.281 |

Note: Standard errors in parentheses*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Experiments:

Please fill out the following document:
Code Number: _____

☐ FIRM ☐ OFFICIAL ☐ CITIZEN

1. **Age:** ____ years
2. **Gender:** ☐ FEMALE ☐ MALE
3. **Field of Study:** _____
4. **Semester:** _____
5. **Work Experience:** ☐ YES ☐ NO
If yes, where and how long (in months): _____
6. **Religion:** ☐ JEWISH ☐ CATHOLIC ☐ PROTESTANT ☐ ISLAM ☐ HINDU ☐ ATHEIST ☐ Other _____ ☐
None
7. **Income:** _____
8. **Time spent in other countries (months):** _____
9. **Reasons for your behavior:**

FIRM

Bribe?

IF, YES: ☐ PAYOFF MAXIMATION ☐ FOR THE SOCIAL / ECONOMIC GOOD OF THE COUNTRY (e.g. reduce unemployment etc.)

☐ TO SEE THE RESPONSE OF THE OFFICIAL / CITIZEN

☐ OTHER REASONS _____

IF, NO: ☐ MORALITY ☐ TO REDUCE CORRUPTION (SOCIAL COST) ☐ PROFIT-MAXIMISATION (IN THE LONG RUN IT IS BAD FOR THE FIRM) ☐ NOT NECESSARY FOR FIRMS TO BRIBE ☐ EQUITY

☐ OTHER REASONS _____

OFFICIAL

ACCEPT?

IF, YES: ☐ NECESSARY FOR FIRMS TO BRIBE / WILL BE ABLE TO HELP THE FIRM ☐ NECESSARY BECAUSE SALARIES ARE LOW ☐ PAYOFF MAXIMATION ☐ EQUITY ☐ GAME WILL CONTINUE

☐ OTHER REASONS _____

IF, NO: ☐ MORALITY ☐ TO REDUCE CORRUPTION (SOCIAL COST) ☐ SCARED OF IMPLICATIONS / RISK

☐ PAYOFF MAXIMISATION ☐ FAIRNESS ☐ BRIBE TOO SMALL

☐ OTHER REASONS _____

CITIZEN

PUNISH?

IF, YES: ☐ MORALITY ☐ REDUCE CORRUPTION ☐ FAIRNESS ☐ NEGATIVE RECIPROCITY

☐ OTHER REASONS _____

IF, NO: ☐ PAYOFF MAXIMISATION ☐ DIFFICULT TO CHANGE THE SYSTEM ☐ INEFFECTIVE PUNISHMENT SYSTEM

☐ BRIBE MAY BE FOR A GOOD PURPOSE OR MAY BE NECESSARY ☐ OTHER REASONS _____

10. **After graduating do you wish to work in the private or public sector?**

☐ PRIVATE SECTOR ☐ PUBLIC SECTOR ☐ DON'T KNOW

11. Hear about or come in contact with corruption?

- ☐ PERSONALLY IN YOUR WORKPLACE ☐ PERSONALLY AT UNIVERSITY ☐ VIA FRIENDS / FAMILY
☐ VIA MASS MEDIA (TV, NEWSPAPER, RADIO) ☐ NO CONTACT

If, Yes: Example:_____

Thank you very much!!!